VITAL STATISTICS:

AND

MEDICAL OFFICER OF HEALTH'S

REPORT

ON THE

SANITARY CONDITION

OF THE

BOROUGH OF SALFORD.

FOR THE YEAR

1868.

ROYAL COLLEGE OF SURGEONS OF ENGLAND

SALFORD:
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TO THE GENERAL HEALTH COMMITTEE FOR THE BOROUGH OF SALFORD.

VITAL STATISTICS, &c.,

FOR THE YEAR ENDING DECEMBER 31st, 1868.

Mr. Chairman,

Gentlemen,

I have the honour to lay before you, the ninth Annual Report upon the Vital Statistics of the Borough, namely, for the year 1868.

During the year 3,610 persons have died; namely, 1862 males, and 1,748 females, showing a difference of 114 in number between the sexes. The deaths show an increase of 328 over those of the preceding year. Allowing for increase of population, the death rate for 1868 is 30·53 per 1,000 per annum, or 1 in 32.

Of the total deaths, 1893, or 52·43 per cent., are of children under 5 years of age, and 1717, or 47·56 per cent., of persons above 5. Of these 1,893 deaths of children, 1,173 occurred under the age of 12 months.

The birth-rate for 1867 was 39·41, for 1868, 39·62 per 1000 per annum.

The death rate for the borough has been according to the returns of the Registrar-General 30·76; or ·23 per 1,000 per annum greater than that shown in the accompanying tables. These tables have all been calculated upon the District Registrars' returns. The population being locally estimated at 118,213; instead of 117,162, the estimate of the Registrar-General.

The birth rate exceeded the death rate by 9·09; or 8·86—according as the local or the Registrar-General's death-rate be used—per 1,000 per annum; the excess being 1,105.

Below is a return of the birth and death rate in fourteen large towns, as, given by the Registrar-General, arranged in the order of their birth-rates, commencing with the lowest. From this it will be seen that for the 53 weeks ending January 2nd, 1869, Salford had the second highest death-rate, and the third highest birth-rate, of the fourteen towns mentioned.

POPULATION: *Births and Deaths: Anuual Birth and Death Rates, in the Year 1868, in London and Thirteen other large Towns of the United Kingdom.*

Cities, &c.	Estimated Population in the middle of the year 1868.	Births in 53 weeks ending 2nd January, 1869.	Deaths in 53 weeks ending 2nd Jan., 1869.	Annual Rate to 1,000 living during the 53 weeks ending 2nd January, 1869.	
				Births	Deaths
TOTAL..	6,441,525	241,850	167,686	36·96	25·63
Dublin (City and some suburbs)	319,985	8,846	8,005	27·22	24·63
Hull (Borough)..............	122,628	4,340	3,041	34·84	24·41
Birmingham (Borough).........	352,296	12,992	8,548	36·31	23·89
Bristol (City)................	167,487	6,179	3,878	36·32	22·79
London (Metropolis)..........	3,126,635	115,744	74,908	36·44	23·59
Bradford (Borough)...........	134,000	5,068	3,606	37·23	26·49
Edinburgh (City).............	177,039	6,713	4,842	37·33	26·93
Manchester (City)............	366,835	14,017	11,924	37·62	32·00
Newcastle-on-Tyne (Borough)..	127,701	5,006	3,317	38·59	25·57
Liverpool (Borough)..........	500,676	19,720	14,858	38·78	29·22
SALFORD (BOROUGH)	117,162	4,715	3,661	39·62	30·76
Sheffield (Borough)...........	232,362	9,293	6,276	39·37	26·59
Glasgow (City)..............	449,868	18,748	13,922	41·03	30·47
Leeds (Borough).............	246,851	10,469	6,900	41·75	27·52

Leeds therefore is shown to have the highest birth rate, and Dublin the lowest.

Manchester the highest death-rate, and Bristol the lowest.

In 1867 Salford stood fifth in each list.

CAUSES OF DEATH.

Scarlatina this year heads the list, 404 deaths having been caused by this disease; the most fatal period being between the ages of 2 and 5. The next most fatal period being between the ages of 5 and 10; the next between the ages of 1 and 2; the next under 1. Above the age of 15 the mortality from this complaint was very slight, it only proving fatal to 7 persons.

Next follows Bronchitis, 373; the most fatal periods being under 1 year, and between 60 and 70.

Diarrhœa carried off 367 persons, of which number 266 were under 1 year, 43 under 2, 15 under 5, and 19 under 70.

Phthisis comes next with her 281 victims, 92 being between the ages of 20 and 30, and 65 between 30 and 40.

The other prominent diseases rank in the following order:—

Convulsions....................	193
Typhus Fever..................	117
Typhoid Fever.................	125
Old Age........................	128
Atrophy (including Marasmus)...	124
Syphilis........................	10 under 1.—1 between 15 and 20.

Comparing 1868 with 1867, the remarkable difference in the fatality of the various diseases will be apparent.

1868.		1867.	
Scarlatina	404	Scarlatina	64
Bronchitis	373	Bronchitis	483
Phthisis	281	Phthisis	333
Diarrhœa	367	Diarrhœa	286
Marasmus	124	Marasmus	201
Convulsions	193	Convulsions	236
Fever	242	Fever	137

In 1867, 39 cases were registered as "Fever," 11 as "Gastric Fever," 3 as "Remittent Fever," 84 as "Typhus;" while in 1868, 117 cases of "Typhus Fever" were registered, and 125 of "Typhoid."

If any value may be attached to these returns, we have the remarkable fact of an increase in 1868, of 33 deaths from Typhus, and 72 from Typhoid Fever. All the other above enumerated causes of death shewing considerable decrease, as compared with those of the former year.

The Death Rates, per 1000 per annum for the estimated population, for the several districts are as follows :—

	1868.	1867.
Salford District	34·34	32·32
Pendleton District	25·69	21·55
Broughton District	17·73	16·27

The apparently unfavourable position of Salford District is due, I think, to the estimate of the population on which the return is based, being enormously below the actual population.

The TOTAL DEATHS in the several Wards are as follows :—

		Deaths in 1868.	Estimated Population.	Annual Rate per 1000.
SALFORD	Blackfriars Ward	273	8679	31.45
	Crescent ,,	1212	30,136	40.21
	St. Stephen's ,,	578	19,558	29·05
	Trinity ,,	660	19,948	33·09
PENDLETON	St Thomas's Ward	350	12,685	27·59
	Seedley ,,	334	14,604	22·88
BROUGHTON	St. John's Ward	76	4829	15·74
	Kersal ,,	127	7774	16·34
		3610	118,213	30·35

In 1867, the Deaths during the last six months only exceeded that of the former by 80; while in 1868, they exceeded those in the first six months by 520.

STREETS IN WHICH DEATHS HAVE BEEN MOST NUMEROUS.

SALFORD DISTRICT.

Name of Street.	Deaths From			Total Number of Deaths.	Number of Houses.
	Fever.	Diarrhœa.	Other Causes.		
Bete Street	4	1	4	9	16
Boond Street	3	3	10	16	27
Cook Street and Courts	4	4	15	23	69
Clayton Street	3	1	6	10	28
Collier Street	2	5	4	11	26
Edith Street	6	2	13	21	24
Gill's Court			4	4	9
Nightingale Square	2	1	2	5	9
Prescott Street	1	1	6	8	28
Prospect Grove	7		6	13	43
Queen Street*	6	12	37	55	182
Quay Street †	5	4	10	19	36
West Wellington Street	4	1	5	10	8
Upper Cleminson Street*	5		13	18	119
West Market Street		1	5	6	16

PENDLETON DISTRICT.

Name of Street.	Fever.	Diarrhœa.	Other Causes.	Total Number of Deaths.	Number of Houses.
Ashton Street			6	6	19
Brocade Street	1		4	5	13
Brettargh Street and Square	1	1	2	4	13
Congreave Street			3	3	11
Denmark Street and Peach Square	1		4	5	14
Douglas Green †	1		12	13	48
Franklin Street	1		1	2	7
Lower Seedley	4		4	8	26
Lucas Street and Buildings			3	3	10
Mill Street	2		1	3	11
Mount Street	1		2	3	12
Orchard Street and Square	6	2	9	17	47
Pimlett Place	1		3	4	12
Sovereign Street	4	1	7	12	48
Smith Street	1		2	3	11
Shuttleworth Street	7	1	4	12	49
Sligo Street	2		3	5	16
Weaste & part of Eccles New-Rd.*	19	2	23	44	162
Yarborough Street	3		2	5	17

* Groups.

† Near the River.

Note.—The population and rate per 1000 has not been printed. This has been omitted on account of the difficulty in giving a reliable estimate of the population in so many different localities. As a rule, 5½ persons per house is a fair estimate, but in some of the above cases it greatly exceeds, while in others it falls below this estimate.

GENERAL SANITARY WORK.

Two thousand three hundred and fifty-seven notices have been served during the year ending December 31st, 1868, for the removal, suppression, or abatement of Nuisances, embracing the following requirements, &c.:—

Particulars of Notices Served.	Salford.	Pendltn.	Bro'ton.	Total.
Attention of owners called to houses out of repair ..	80	6	4	90
Emission of dense smoke	361	20	2	383
Neglecting to comply with slaughter-house bye-laws	12	3	..	15
Do. do. bake-house regulations ..	25	4	..	29
Notices to scavenging department of ashpits to be emptied, and patent grids stopped	217	292	306	815
Notices to surveyor of street grids, &c., being stopped	89	18	2	109
Notices to water department of pipes burst, and taps out of repair	42	5	..	47
To limewash dwelling houses	1,079	311	2	1,392
Ditto yards and privies	1,577	195	..	1,772
Ditto cellar dwellings	181	76	2	259
To construct or alter privies and ashpits	63	4	14	81
,, repair surface pavements of yards, &c.	524	9	4	537
,, open, cleanse, or repair drainage to yards, &c. ,, provide new drains to yards and passages	1,094	59	31	1,184
,, provide and fix stench traps to drains	1,364	10	92	1,466
,, repair walls of ashpits	228	21	4	253
,, drain ashpits	488	15	14	527
,, provide doors to ashpits	99	52	..	151
,, construct urinals	13	..	..	13
,, remove offensive urinals	4	..	..	4
,, repair dangerous walls, chimneys, grids, &c.	85	3	..	88
,, ventilate ashpits	50	..	..	50
,, provide drains to slopstones	32	3	..	35
,, disconnect slopstone-pipes from drains	580	8	..	588
,, discontinue the carrying on noxious or offensive trades or business	4	..	1	5
,, repair spouts and gutters to dwelling houses	224	54	..	278
,, provide spouts and gutters to privies	731	2	5	738
,, fill up, or discontinue use of cesspools	24	3	4	31
,, connect down-spouts with drains	61	13	..	74
,, divert drains from ashpits	65	5	..	70
,, drain off stagnant water	24	6	22	52
,, provide water-flush to water closets	8	..	..	8
,, repair do. do	6	..	..	6
,, abate overcrowding of dwelling-houses	8	8	..	16
,, remove water cisterns not in use	6	..	..	6
,, remove manure, filth, and rubbish	80	118	47	245
,, build manure receptacles	12	..	2	14
,, close dwelling-houses unfit for habitation	..	1	..	1
,, provide ashpits and privy accommodation	12	4	6	22
,, provide ventilation to cellar dwellings	8	1	..	9
,, remove swine	107	8	2	117
,, remove other animals	17	1	..	18
,, discontinue burning bricks within the prescribed distance	3	..	..	3
,, burn or destroy offensive bedding	1	..	..	1
,, cover over ashpits	13	..	..	13
,, raise chimneys of works, &c.	5	1	..	6
,, repair or make habitable interior of houses	56	6	..	69
,, disinfect	27	4	..	31
,, remove ashpits and privies	4	..	..	4
,, provide water closets	8	1	..	9
,, Miscellaneous	8	8	..	16
Totals	9,819	1,358	566	11,743

SANITARY WORK DONE FROM JANUARY 1ST TO DECEMBER 31ST, 1868:—

PARTICULARS.	SALFORD.	PENDLTN.	BRO'TON.	TOTAL.
Bakehouses limewashed	39	25	..	64
Dwelling-houses inspected	6,864	2,010	73	8,947
Rooms examined { UP. DOWN. 4,847 6,870 1,050 2,960 }	11,717	4,010	80	15,807
Cellar dwellings inspected	457	101	..	567
Ditto closed for habitation	29	..	..	29
Rooms examined	676	230	..	906
Other premises inspected	486	89	..	575
Courts and passages inspected	476	184	..	660
Re-inspection of premises after notices	2,192	354	56	2,602
Total number of inspections requiring attention	2,649	354	..	3,003
Houses measured for registration as lodging houses	147	9	..	156
Rooms measured for do. do.	404	28	..	432
Houses, yards, drainage, and privies disinfected	557	51	..	608
Sub-let houses inspected	28	9	..	37
Bakehouses inspected	129	25	..	154
Slaughter-houses inspected	1,050		30	1,080
Complaints laid at the offices	340	75	..	413
Notices served by inspectors	1,087	326	28	1,441
Privies and ashpits taken down by surveyor	114	..	..	114
Privies and ashpits erected in lieu of the above by surveyor	96	..	..	96
New drainage constructed by surveyor	122	51	..	173
Interior of dwelling-houses limewashed	1,258	279	..	1,537
Do. do. repaired, &c.	51	6	..	57
Do. do. disinfected by owners	14	9	..	18
Smoke observations	78	97	2	177
Yards, privies, and passages limewashed	754	204	..	958
Interior of cellar dwellings limewashed	162	76	..	238
Roofs of houses repaired	79	3	2	84
Rubbish, filth, and manure removed	76	118	28	222
Drains to yards and passages opened, cleansed, and repaired	302	8	20	330
New drainage to yards	158	51	4	180
Surface of yards and passages repaired	359	9	2	370
Overcrowding of dwelling-houses, &c., abated	47	8	..	55
Dangerous walls, chimneys, grids, &c., attended to	70	3	..	73
Eave-spouts and down-spouts provided to houses	204	20	..	224
Do. do. do. privies	498	2	..	500
Ashpits and privies altered and repaired	237	21	6	264
Ashpits drained	342	15	18	375
Doors provided to ashpits and privies	74	48	29	151
Rooms over ashpits not used	9	..	..	9
Ashpits ventilated	60	..	..	60
Manure receptacles improved and provided	7	..	1	8
Sunk cesspools filled up	15	..	..	15
Drains diverted from ashpits	38	5	..	43
Stench traps provided to drains	501	10	10	521
Stagnant water drained off	19	6	17	42
Down-spouts connected with drains	24	13	..	37
Chimneys raised	5	1	..	6
Urinals removed	2	..	..	2
Water taps removed	3	..	..	3
Water cisterns not in use removed	2	..	..	2
Urinals provided	5	..	..	5
Privy roofs reversed	20	..	..	10
Water-closets provided	4	1	3	8
Privy and ashpit accommodation provided	14	4	..	18
Swine removed from yards, &c.	374	8	2	384
Other animals removed	9	1	..	10
Objectionable privies removed	1	..	..	1
Noxious trades discontinued	1	..	1	2
Slopstone pipes disconnected	56	..	..	56
Spouts connected with drains	6	..	..	6
Miscellaneous	65	8	..	73
Totals	35,629	8,969	412	45,010

SMOKE NUISANCE.

During the year 1868, 58 Smoke cases were dealt with as follows:—

35 Cautioned;
6 Dismissed;
14 Fined various sums, amounting in all to £8 10s.;
1 Ordered to improve construction;
2 Visited by Committee.

BAD MEAT, &c.

143 seizures of Bad Meat and other unwholesome commodities intended for food have been made during 1868.

9 persons have been summoned before the Magistrates on account of bad meat. 6 convictions have been obtained, and penalties amounting in all to £67 have been imposed.

The following are the particulars of these Seizures:—

Class of Meat, Seized.	Number of Seizures.	Weight in lbs. Seized and Destroyed.	Number of Persons Summoned	Convictions	Amount of Penalties Imposed. £	s.	d.
Beef..............	22	6,891	8	6	67	0	0
Mutton	81	4,019	..	..	..		..
Lamb	24	1,196	..	..	..		..
Veal..............	7	503	1	..	..		..
Fish (various kinds)	2	631	..	..	..		..
TOTALS........	143	13,240	9	6	£67	0	0

THE CONDITION OF THE SLAUGHTER-HOUSES WITHIN THE BOROUGH.

On October 7th, 1868, I reported to your Committee as to the condition of the Slaughter-houses in Salford.

I am still of opinion that "they are all more or less nuisances, and dangerous to health." The need of a Public Abbatoir is very urgent.

Until Public Abbatoirs are provided the "Slink" trade can never be effectually put down.

I am of opinion that all Meat should be inspected before being sold.

CELLAR DWELLINGS AND OVERCROWDING.

There are still a number of Cellar Dwellings in the Borough which ought to be closed. This closure should be gradual.

Overcrowding, especially in houses sub-let in Lodgings, does certainly exist to a great extent.

This is a very difficult question to deal with, but I am strongly of opinion that the Bye-laws against overcrowding should be enforced as far as practicable.

THE ARTIZANS' AND LABOURERS' DWELLINGS ACT, 1868.

This Act will doubtless be a very great assistance in a Sanitary point of view. As the Act has only just now come into operation, no action as yet has been taken on it in Salford; but I am making the necessary arrangements for carrying out its provisions, in obedience to the resolution of your committee.

THE WORKSHOPS' REGULATION ACT, 1868.

On October 7th, 1868, the provisions of this Act were adopted by the Corporation of Salford, and the duty of carrying them into force committed to this department. The necessary arrangements are now being made to give immediate effect to this resolution.

INSPECTION OF NEW BUILDINGS.

Many cases of sickness are undoubtedly traceable to the too early occupation of newly built houses. Your appointment of an Inspector of Buildings will, doubtless, do much towards remedying this evil, as well as ensure the more perfectly carrying out of the building regulations, as to drainage, &c.

THE RIVERS POLLUTION COMMISSIONERS.

The Report of the Rivers Pollution Commissioners will doubtless, when issued, tend greatly to modify the present arrangements for the Drainage of Salford, and until it is issued it would not be expedient to re-model or re-construct the existing Sewers. With the opinions expressed in the answers given by the Corporation of Salford to the Pollution Commissioners I cordially agree. As they are already printed, there is no occasion to reproduce them here.

GENERAL REMARKS.

By reference to Table 2 it will be seen that during the third quarter of 1868, *i.e.*, July, August, and September, Diarrhœa was alarmingly prevalent in Salford. Scarlet Fever was also very fatal during the same period.

The following extract from the above-mentioned Table will show this at a glance:—

From January 1st to December 31st, 1868.

	1st Quarter.	2nd Quarter.	3rd Quarter.	4th Quarter.	Totals.
Diarrhœa ..	32	18	266	51	367
Scarlatina ..	62	58	103	181	404

If we analyse the ages of these Diarrhœa victims, we shall find that of the total 367 deaths, 266 are those of mere babies, viz., under one year old.

This fact at once does away with the theory that our Diarrhœa epidemic was caused by "unripe fruit, &c." It also shows us that no mere wholesale distribution of "Diarrhœa Mixture" would have met the evil. Doubtless, had these 266 unfortunate babies only had proper Medical Treatment, Food, and Nursing, a large proportion of them would have recovered. The Corporation of Salford, however, can scarcely be called upon to provide the sick poor with Medicines and Medical attendance, and except under very extraordinary circumstances I should never feel justified in recommending a distribution of Medicine unaccompanied by competent medical advice. I am of opinion, as stated in my Report of October 10th, 1868, that this "Diarrhœa" was in reality a variety of "Typhoid Fever." In this opinion, I have been borne out by every medical man I have conversed with.

The prevalence of Scarlet Fever points to radical defects in our Sewers and Middens, and House Drainage. The evils consequent on unventilated Sewers and reeking Middens cannot be exaggerated.

I do indeed hope that your Committee will as speedily as possible decide upon some scheme for ventilating the Sewers.

If a number of small open spaces could be secured in different localities for the purpose of children's play-grounds, they would prove a great boon. By this means too, street accidents might be avoided, and the health of the children protected at the same time.

Of course, the habits of the people themselves, the neglect of children by their mothers, and the large amount of drunkenness which prevails, contribute greatly to swell our death-rate. These evils are, as it were, outside evils, which can only be remedied by outside influences. What may be termed mechanical evils only, fall within the jurisdiction of your committee, such as Defective Drainage, contraventions of the Building Bye-Laws, &c.

I am glad to find so many institutions and societies for the amelioration and education of the poor, actively at work in Salford. Ragged and Industrial Schools, Sunday Schools, Mission Women, District Visitors, are all steps in the right direction; and I bear willing testimony to their sanitary usfulness.—May their efforts command the support they deserve.

The Meteorological Report of Mr. Mackereth, F.M.S., F.R.A.S., will be found to contain most valuable information, and I would particularly draw attention to that portion of it which refers to the differences of temperature which exist between Salford and Eccles.

I would however here remark, that as a rule the effect of the weather on the death-rate, must be looked for in the week or ten days immediately following any decided change, rather than in the week during which the change took place.

By comparing the year 1868 with 1867, the beneficial effects of dryness on Bronchitis and Phthisis is very apparent.

I think it is only right to mention that at least one half the sanitary work done during 1868, was done under the personal supervision of Mr. Alderman Davies, who, in consequence of Mr. Pickering's illness, voluntarily took upon himself the task of superintending this department.

As I only entered upon my duties as Medical Officer of Health in August, 1868, I am naturally not in a position to make such a complete and extended return as I shall be next year, but I hope this will be found ample enough for the purpose of affording all necessary information.

Allow me, in conclusion, to tender my thanks to your Committee, for the help and assistance I have on every occasion received at your hands.

I remain, Gentlemen,
Yours respectfully,
EDMUND J. SYSON, L.R.C.P.E., &c. &c.,
Medical Officer of Health for Salford.

February 21*st*, 1869.

Errata: In the Tables for *Tubercula,* read *Tubercular:*

WEEKLY REGISTER OF DEATHS IN THE BOROUGH OF SALFORD,

FROM JANUARY 1st, 1868, TO DECEMBER 31st, 1868.

CAUSES OF DEATH.	1	2	3	4	5	6	7	8	9	10	11	12	13	First Quarter.	14	15	16	17	18	19	20	21	22	23	24	25	26	Second Quarter.	27	28	29	30	31	32	33	34	35	36	37	38	39	Third Quarter.	40	41	42	43	44	45	46	47	48	49	50	51	52	5 Days.	Fourth Quarter.	Total for the Year.	CAUSES OF DEATH.
Class I.—Small Pox	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	4	Class I.—Small Pox
Measles	..	..	1	2	1	..	..	..	..	3	1	..	1	9	1	5	3	1	3	3	4	2	..	5	..	4	1	32	2	..	..	..	4	4	2	3	..	1	..	2	1	19	1	1	1	..	..	1	..	1	1	..	2	1	6	..	15	75	Measles.
Scarlatina	2	6	6	5	11	2	5	6	3	5	1	4	6	62	3	6	2	6	2	4	3	4	4	10	7	4	3	58	4	9	3	6	6	9	7	11	9	8	6	8	17	103	13	16	15	17	12	13	9	21	15	10	7	15	13	5	181	404	Scarlatina.
Hooping Cough	1	2	5	6	2	9	3	..	4	6	1	..	2	41	2	2	5	3	4	2	1	2	1	2	1	1	..	26	2	3	..	1	1	1	..	2	..	1	1	1	..	13	..	..	..	..	..	..	..	..	..	..	1	..	1	..	2	82	Hooping Cough.
Croup	2	1	2	2	2	2	1	1	..	4	1	1	1	20	3	1	..	3	..	1	..	1	1	..	..	1	..	11	2	..	1	1	..	..	2	1	..	1	2	..	..	10	1	2	2	1	..	2	..	..	1	..	..	..	1	..	10	51	Croup.
Diarrhœa	3	2	3	..	1	3	2	4	1	2	3	7	1	32	4	2	2	..	..	..	..	1	1	1	3	1	3	18	13	13	16	19	24	24	30	28	14	24	24	21	16	266	13	12	5	5	3	2	7	..	1	..	..	2	1	..	51	367	Diarrhœa.
Dysentery	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	2	3	..	1	2	2	1	1	..	1	2	..	..	1	14	..	1	..	..	..	..	2	..	..	..	..	..	..	..	3	20	Dysentery.
Cholera, English	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	2	2	..	..	1	..	..	..	..	8	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	9	Cholera, English.
,, Asiatic	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	,, Asiatic.
Influenza	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	Influenza.
Typhus Fever	1	1	7	2	3	3	..	4	1	3	3	4	5	37	3	2	5	4	2	2	..	2	1	2	1	1	1	26	2	..	1	1	3	3	4	1	1	3	3	3	6	31	3	1	2	1	2	1	1	2	2	4	..	1	1	2	23	117	Typhus Fever.
Typhoid ,,	..	2	..	2	..	3	..	4	2	..	..	..	1	14	2	..	3	..	2	3	1	2	4	3	1	..	2	23	..	..	..	2	1	5	2	4	7	5	2	1	3	32	5	8	7	9	4	2	5	3	3	3	2	1	3	1	56	125	Typhoid ,,
Erysipelas	..	1	..	..	..	..	..	..	..	1	1	..	..	3	..	..	..	..	..	2	..	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	..	..	..	1	..	..	4	9	Erysipelas.
Syphilis	..	..	..	1	..	..	1	1	..	..	..	..	1	4	2	..	..	2	..	..	..	..	..	..	..	..	1	5	..	1	2	..	..	..	2	1	..	..	..	..	..	6	..	2	..	..	..	..	..	..	..	..	..	1	1	1	5	20	Syphilis.
Dyphtheria	1	..	1	1	..	..	..	2	2	1	1	3	..	12	2	1	2	2	1	..	1	1	1	..	..	2	..	13	..	1	1	..	..	..	2	..	1	..	1	..	1	7	..	..	1	1	..	1	1	..	..	..	1	1	..	..	6	38	Dyptheria.
Quinsey	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	3	Quinsey.
Class II.—Dropsy	1	3	..	..	..	2	1	1	..	1	..	1	..	10	1	1	1	1	1	1	3	..	1	1	3	1	..	15	..	..	1	..	1	1	1	..	1	2	3	1	1	12	3	2	2	3	2	1	2	4	1	2	..	..	1	1	24	61	Class II.—Dropsy.
Cancer	..	..	2	1	1	..	2	1	..	..	1	2	1	11	..	..	..	1	..	1	1	..	..	1	1	1	..	6	1	1	..	..	..	..	2	..	1	1	..	1	1	8	..	..	..	1	..	..	..	2	1	..	1	..	..	..	5	30	Cancer.
Abscess	..	..	1	..	2	..	..	..	1	..	1	..	..	5	..	..	2	..	..	..	..	..	..	..	..	..	2	4	1	1	1	2	1	..	2	..	1	..	1	1	1	12	1	..	..	..	1	1	..	..	..	1	..	1	..	..	5	26	Abscess.
Class III.—Scrofula	..	..	..	1	1	..	..	..	..	..	..	..	1	3	..	1	1	..	..	..	..	..	2	..	..	..	..	4	2	..	..	..	1	2	2	1	..	2	..	..	1	11	..	1	..	..	..	..	..	..	..	..	..	..	1	..	2	20	Class III.—Scrofula.
Tabes Mesenterica	1	..	1	1	2	..	..	..	..	..	2	3	1	11	1	2	1	1	1	3	2	2	..	1	1	..	1	16	..	..	2	1	2	..	1	..	1	1	2	3	2	15	1	2	..	..	1	1	5	..	..	..	..	1	..	3	14	56	Tabes Mesenteria.
Phthisis	1	3	4	8	4	4	1	4	7	9	2	5	4	56	5	8	6	10	4	7	7	7	4	13	5	9	8	93	1	6	..	11	6	5	5	2	6	6	6	2	7	63	8	7	1	8	3	7	2	3	5	8	5	4	4	4	69	281	Phthisis.
Hydrocephalus	..	..	..	..	..	..	..	1	3	..	1	2	..	7	..	..	..	..	1	2	..	1	1	3	2	..	..	10	..	..	1	..	1	1	2	1	..	..	1	..	..	7	..	1	..	..	1	1	1	1	1	..	1	..	..	2	9	33	Hydrocephalus.
Neuralgia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Neuralgia.
Rickets	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Rickets.
Class IV.—Inflammation of Brain, &c.	2	2	..	1	1	..	3	1	1	2	..	..	..	13	1	2	1	1	1	1	3	..	1	..	2	..	2	15	..	1	4	1	2	1	3	3	..	1	1	3	1	21	1	..	1	..	2	..	4	2	1	..	1	..	2	2	16	65	Class IV.—Inflammation of Brain, &c.
Apoplexy	..	1	2	..	..	..	..	1	1	..	..	1	2	8	1	1	1	1	..	1	..	1	..	1	1	1	..	9	2	1	2	..	..	1	2	1	..	..	2	2	..	13	..	..	..	..	..	1	1	..	..	..	..	..	1	..	3	33	Apoplexy.
Paralysis	2	..	1	..	1	..	..	1	3	1	1	2	3	15	..	1	2	1	1	1	3	1	1	3	1	2	1	18	..	..	..	2	..	1	..	..	1	..	2	..	1	7	5	1	1	1	..	2	1	3	1	2	1	..	..	..	18	58	Paralysis.
Epilepsy	..	..	..	..	..	1	..	..	..	..	..	..	1	2	..	..	..	..	..	..	1	..	1	1	..	..	..	3	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	6	Epilepsy.
Convulsions	6	7	5	2	6	6	4	5	4	5	5	3	3	61	6	5	3	6	2	3	5	2	3	2	3	2	1	43	1	4	..	4	..	2	2	4	2	1	6	3	5	34	1	2	6	1	1	..	4	5	5	8	7	8	4	3	55	193	Convulsions.
Disease of Brain, &c.	..	6	2	..	1	3	..	..	1	..	..	1	1	15	1	..	..	..	1	..	..	1	..	1	..	..	..	4	..	..	..	..	2	2	1	..	..	4	1	1	3	14	3	1	1	5	3	1	1	..	1	1	..	..	1	..	18	51	Disease of Brain, &c.
Disease of Spine	1	..	..	1	..	..	1	..	1	..	..	..	1	5	..	1	1	..	..	..	..	1	1	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	2	..	..	2	..	..	..	..	1	1	..	1	1	1	..	..	..	..	5	16	Disease of Spine.
Class V.—Disease of Heart	2	3	1	1	3	2	..	2	2	1	1	3	1	22	1	2	2	2	3	3	1	2	2	1	1	..	..	20	1	2	1	2	2	1	1	3	2	4	..	..	1	20	..	1	3	1	1	3	2	..	2	..	1	3	5	2	24	86	Class V.—Disease of Heart.
Hæmorrhage	1	..	..	..	..	..	..	..	1	..	..	..	..	2	..	..	..	..	..	..	..	1	..	1	..	1	..	3	..	..	..	..	..	1	..	..	..	..	..	1	..	2	..	..	..	..	..	..	1	..	1	..	..	..	..	..	2	9	Hæmorrhage.
Class VI.—Bronchitis	6	7	8	11	12	9	10	1	10	9	6	6	6	101	8	8	5	13	9	3	8	11	2	10	8	7	2	94	3	3	7	3	9	2	4	2	4	6	4	5	3	55	4	3	10	6	7	5	15	12	12	16	7	12	8	6	123	373	Class VI.—Bronchitis.
Pneumonia	..	2	4	..	..	1	1	2	2	2	2	1	1	18	1	2	1	1	..	1	1	2	2	..	2	1	2	16	1	..	..	2	..	1	..	1	4	1	..	..	1	11	2	1	4	3	3	2	2	3	1	9	3	3	2	5	43	88	Pnuemonia.
Asthma	..	1	..	..	1	..	..	..	..	..	..	2	..	4	..	..	..	..	2	..	..	..	..	..	..	..	..	2	..	1	..	..	..	..	1	..	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	9	Asthma.
Disease of Lungs, &c.	..	..	..	..	..	1	1	..	1	1	..	1	..	5	1	..	..	..	1	..	1	2	1	..	1	..	..	7	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	1	2	3	3	..	..	..	10	23	Disease of Lungs, &c.
Class VII.—Teething	..	..	..	2	4	..	1	..	1	..	2	..	2	12	3	2	1	1	2	2	..	1	1	..	..	..	..	13	1	..	1	..	..	1	2	2	3	3	1	..	..	14	1	..	..	2	..	..	..	..	1	..	..	..	..	..	4	43	Class VII.—Teething.
Inflammation of Stomach	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	1	..	1	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	5	Inflammation of Stomach.
Inflammation of Bowels	..	..	..	..	1	..	..	..	..	..	..	..	1	2	..	1	1	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..	1	..	..	2	..	..	..	..	..	4	2	2	1	1	1	..	..	..	2	..	1	..	1	..	11	19	Inflammation of Bowels.
Peritonitis	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	1	2	..	..	..	..	..	..	..	1	..	..	1	5	9	Peritonitis.
Disease of Stomach, &c.	..	1	..	..	..	1	..	1	..	..	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	1	..	1	1	..	..	..	1	5	..	..	..	1	..	..	1	..	..	..	..	1	..	..	3	12	Disease of Stomach, &c.
Disease of Liver	..	1	..	..	1	..	..	1	..	1	1	2	2	9	..	..	..	1	..	1	..	3	..	..	1	2	2	10	1	1	2	..	..	1	..	..	..	1	1	..	..	7	2	3	..	2	3	1	..	..	..	2	1	..	..	1	15	41	Disease of Liver.
Diabetes	..	..	..	..	..	..	..	..	..	2	..	..	..	2	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	1	2	6	Diabetes.
Hernia	..	..	..	..	..	..	..	..	..	..	1	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	5	Hernia.
Mortification	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Mortification.
Colic Pictonum	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Colic Pectonium.
Class VIII.—Disease of Kidneys, &c.	..	..	..	..	..	..	..	..	1	..	1	..	..	2	1	..	2	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	1	3	1	2	..	..	..	7	1	..	2	1	2	..	..	1	..	1	1	1	1	..	11	23	Class VIII.—Disease of Kidneys, &c.
Disease of Bladder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	5	Disease of Bladder.
Class IX.—Childbirth	..	..	1	..	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	1	..	..	..	1	..	..	2	2	..	..	..	1	..	..	..	3	..	..	..	1	7	..	2	..	..	..	..	..	1	..	..	..	..	1	..	4	15	Class IX.—Childbirth.
Uterine Diseases	..	..	..	1	..	..	..	1	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	3	..	..	..	1	..	2	1	..	1	..	3	..	..	..	8	13	Uterine Disease.
Class X.—Rheumatism, Diseases of Joints, &c.	..	..	2	..	1	..	..	..	..	..	3	..	..	6	1	..	..	1	..	..	..	1	2	..	1	2	..	8	..	1	1	..	..	1	..	..	..	..	1	..	1	5	..	..	1	1	..	1	2	..	1	1	..	..	..	1	8	27	Class X.—Rheumatism, Disease of Joints, &c.
Class XI.—Skin Diseases, Cellular Tissue, &c.	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	3	Class XI.—Skin Diseases, Cellular Tissue, &c.
Apthæ	..	..	..	1	2	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	2	1	..	..	..	..	..	..	..	..	..	..	..	3	7	Apthæ.
Class XII.—Debility	..	..	..	1	1	..	1	1	..	3	1	..	2	10	1	..	1	..	..	1	..	..	1	..	1	..	2	7	2	..	1	3	..	..	..	..	..	2	3	1	..	12	..	4	..	2	1	..	1	..	..	1	1	..	..	..	10	39	Class XII.—Debility.
Class XIII.—Premature Birth	1	1	3	2	2	1	4	4	1	1	1	3	1	25	..	2	2	..	1	1	2	..	6	..	2	..	2	18	2	..	3	1	1	1	..	2	4	2	1	..	3	20	..	2	..	1	..	1	2	1	1	2	..	1	..	3	14	77	Class XIII.—Premature Birth.
Difficult Birth	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	Difficult Birth.
Class XIV.—Atrophy	1	1	1	..	..	1	..	..	..	..	..	..	1	5	1	..	..	..	1	2	2	..	..	..	1	..	1	8	..	1	..	..	1	2	2	2	1	..	1	1	1	12	1	3	1	..	..	..	..	..	..	..	1	..	..	..	6	31	Class XIV.—Atrophy.
Marasmus	1	2	1	..	1	..	2	1	1	..	2	..	2	13	2	..	..	..	2	..	1	..	3	2	1	..	1	12	3	2	4	6	4	3	2	6	2	4	5	2	6	49	..	1	1	4	1	2	..	..	1	4	1	..	3	..	18	92	Marasmus.
Anœmia	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Anæmia.
Class XV.—Old Age	2	6	3	3	3	1	..	3	4	3	1	1	3	33	..	1	5	2	1	2	2	2	2	..	2	2	2	23	2	2	1	3	4	6	1	5	3	4	2	3	3	39	2	2	1	3	..	2	3	2	1	5	1	7	4	..	33	128	Class XV.—Old Age.
Class XVI.—Malformation	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	1	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	6	Class XVI.—Malformation.
Class XVII.—Delirium Tremens	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	1	1	1	..	1	1	..	..	..	..	..	5	..	1	..	1	..	..	..	..	..	..	2	..	..	..	4	11	Class XVII.—Delirium Tremens.
Inquests.—Wilful Murder	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Inquests.—Wilful Murder.
Lungs, Inflammation of	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	Lungs, Inflammation of
Burns	1	..	..	..	1	..	1	1	..	..	..	2	..	6	..	..	1	1	..	..	..	..	1	..	..	..	..	3	..	..	..	..	..	..	..	1	1	..	1	..	..	3	..	..	..	..	1	1	1	..	1	..	..	..	..	..	4	16	Burns.
Sudden Death	..	3	..	1	1	1	1	1	..	1	..	2	..	11	1	1	..	..	..	1	..	..	..	..	..	..	..	3	2	..	..	..	..	1	..	1	..	1	..	..	3	8	1	1	..	..	..	..	..	..	..	1	1	1	..	..	5	27	Sudden Death.
Found Dead	..	1	1	1	..	..	..	..	..	1	1	..	..	5	..	..	1	..	1	..	1	..	..	1	..	2	..	6	..	..	..	..	..	1	..	..	1	..	..	1	..	3	..	1	4	..	..	4	..	..	2	..	1	..	..	..	12	26	Found Dead.
Scalds	..	1	..	..	..	..	..	..	..	..	..	3	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	1	1	..	..	..	..	..	..	1	..	..	5	9	Scalds.
Suicide	..	..	1	..	..	..	..	..	..	1	..	..	..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	1	6	Suicide.
Crush	..	..	..	..	1	1	..	..	..	1	1	1	..	5	..	..	..	1	1	..	..	..	..	1	..	..	..	3	..	2	1	..	..	..	..	..	..	..	..	..	..	3	..	..	..	..	..	..	1	..	..	1	..	..	..	..	2	13	Crush.
Drowning	..	..	..	..	..	..	1	..	..	..	..	1	..	2	..	1	1	..	..	..	..	..	..	..	..	..	1	3	1	..	..	1	..	..	1	..	..	..	..	..	1	4	2	..	..	..	1	1	..	..	..	..	1	..	1	1	7	16	Drowning.
Poisoning	..	..	..	..	..	..	1	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	Poisoning.
Epilepsy	..	..	..	..	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	Epilepsy.
Delirium Tremens	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	4	Delirium Tremens.
Natural Causes	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Natural Causes.
Convulsions	..	..	..	..	..	..	..	..	1	..	..	1	..	2	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	Convulsions.
Phthisis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	Phthisis.
Apoplexy	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	Apoplexy.
Falls	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	3	..	..	..	..	1	..	..	..	1	..	1	..	..	3	1	..	..	..	..	1	..	..	1	..	..	..	..	..	3	9	Scalds.
Suffocation	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	1	1	..	..	..	2	4	Suffocation.
All Causes	39	67	70	61	74	58	49	58	63	70	50	69	61	789	66	62	66	67	51	55	56	58	52	69	57	53	44	756	59	59	63	78	88	88	94	98	78	95	89	69	95	1053	80	92	78	85	60	65	79	72	71	88	61	67	68	46	1012	3610	All Causes.
I.—Zymotic Diseases	10	15	25	22	20	22	12	22	15	25	12	19	18	237	22	19	22	21	14	17	11	15	14	23	14	14	11	217	28	28	27	33	43	49	52	52	34	45	39	36	45	511	37	43	33	35	22	23	25	29	23	17	13	23	27	9	359	1324	I.—Zymotic Diseases.
II.—Diseases of Uuncertain or Variable Seat	1	3	3	1	3	2	3	2	1	1	2	3	1	26	1	1	3	2	1	2	4	..	1	2	4	2	2	25	2	2	2	2	2	1	5	..	3	3	4	3	3	32	4	2	2	4	3	2	2	6	2	3	1	1	1	1	34	117	II.—Diseases of Uncertain or Variable Seat.
III.—Tubercula Diseases	2	3	5	10	7	4	1	5	10	9	5	10	6	77	6	11	8	11	6	12	9	10	7	17	8	9	9	123	4	7	3	12	10	8	10	4	7	9	9	5	10	98	9	11	1	8	5	9	8	4	6	8	6	5	5	9	94	392	III.—Tubercular Diseases.
IV.—Diseases of the Brain, Spinal Marrow, &c.	11	16	10	4	9	10	8	8	11	8	6	7	11	119	9	10	8	9	5	6	12	6	7	8	7	5	4	96	3	6	6	7	4	7	9	8	3	6	14	9	10	92	10	4	9	7	7	5	11	11	9	12	9	8	8	5	115	422	IV.—Diseases of the Brain, Spinal Marrow, &c.
V.—Diseases of the Heart and Blood-Vessels	3	3	1	1	3	2	..	2	3	1	1	3	1	24	1	2	2	2	3	3	1	3	2	2	1	1	..	23	1	2	1	2	2	2	1	3	2	4	..	1	1	22	..	1	3	1	1	3	3	..	3	..	1	3	5	2	26	95	V.—Diseases of the Heart and Blood-Vessels.
VI.—Diseases of the Lungs, &c.	6	10	12	11	13	11	12	3	13	12	8	10	7	128	10	10	6	14	12	4	10	15	5	10	11	8	4	119	4	4	7	5	10	3	5	3	8	7	4	5	4	69	6	4	14	9	11	7	17	16	15	29	13	15	10	11	177	493	VI.—Diseases of the Lungs, &c.
VII.—Diseases of the Stomach, Liver, &c.	..	2	..	2	6	1	1	2	1	3	5	2	7	32	5	3	2	2	2	3	..	4	1	2	2	4	2	32	2	1	5	1	3	3	3	5	4	5	2	..	2	36	5	6	4	6	4	1	1	..	3	2	4	1	2	3	42	142	VII.—Diseases of the Stomach, Liver, &c.
VIII.—Diseases of the Kidneys, &c.	..	..	..	..	..	..	..	..	1	..	1	..	..	2	1	1	2	..	1	..	..	..	..	..	..	..	1	6	..	..	..	..	..	..	1	3	1	2	..	1	..	8	1	..	2	1	2	..	..	2	..	1	1	1	1	..	12	28	VIII.—Diseases of the Kidneys, &c.
IX.—Childbirth, Disease of the Uterus, &c.	..	..	1	1	..	..	..	2	..	..	..	..	..	4	..	..	..	..	..	..	1	..	..	..	1	..	..	2	2	..	..	1	1	..	..	2	3	..	..	..	1	10	..	2	..	1	..	2	1	1	1	..	3	..	1	..	12	28	IX.—Childbirth, Disease of the Uterus, &c.
X.—Rheumatism, Diseases of the Joints, &c.	..	..	2	..	1	..	..	..	..	..	3	..	..	6	1	..	..	1	..	..	..	1	2	..	1	2	..	8	..	1	1	..	..	1	..	..	..	..	1	..	1	5	..	..	1	1	..	1	2	..	1	1	..	..	..	1	8	27	X.—Rheumatism, Diseases of the Joints, &c.
XI.—Diseases of the Skin, Cellular Tissues, &c.	..	..	..	1	2	1	..	..	..	..	..	..	..	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2	..	2	1	..	..	..	1	..	..	..	..	..	..	..	4	10	XI.—Diseases of the Skin, Cellular Tissues, &c.
XII.—*Debility*	..	..	..	1	1	..	1	1	..	3	1	..	2	10	1	..	1	..	..	1	..	..	1	..	1	..	2	7	2	..	1	3	..	..	..	..	..	2	3	1	..	12	..	4	..	2	1	..	1	..	..	1	1	..	..	..	10	39	XII.—*Debility.*
XIII.—*Premature Birth*	1	1	3	2	2	1	4	4	1	1	1	3	1	25	..	2	2	..	1	1	2	..	6	..	2	..	2	18	2	..	3	1	1	1	..	2	4	2	1	..	3	20	..	3	..	1	..	1	2	1	1	2	..	1	..	3	15	78	XIII.—*Premature Birth.*
XIV.—*Atrophy and Marasmus*	2	3	2	..	1	1	2	1	1	..	2	..	3	18	4	..	..	..	3	2	3	..	3	2	2	..	2	21	3	3	4	6	5	5	4	8	3	4	6	3	7	61	1	4	2	4	1	2	..	..	1	4	2	..	3	..	24	124	XIV.—*Atrophy and Marasmus.*
XV.—*Old Age*	2	6	3	3	3	1	..	3	4	3	1	1	3	33	..	1	5	2	1	2	2	2	2	..	2	2	2	23	2	2	1	3	4	6	1	5	3	4	2	3	3	39	2	2	1	3	..	2	3	2	1	5	1	7	4	..	33	128	XV.—*Old Age.*
XVI.—*Malformation*	..	..	1	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	1	1	..	..	..	1	..	..	..	..	1	..	..	..	3	1	..	..	..	..	..	..	..	..	..	..	..	..	..	1	6	XVI.—*Malformation.*
XVII.—Sudden Deaths, &c	1	5	2	2	3	2	5	3	2	4	2	11	1	43	4	2	5	3	2	2	1	2	1	3	1	6	3	35	3	3	2	2	2	2	3	3	3	1	3	2	4	33	4	4	5	2	3	7	2	..	5	3	6	2	1	2	46	157	XVII.—Sudden Deaths, &c.
Total	39	67	70	61	74	58	49	58	63	70	50	69	61	789	66	62	66	67	51	55	56	58	52	69	57	53	44	756	59	59	63	78	88	88	94	98	78	95	89	69	95	1053	80	92	78	85	60	65	79	72	71	88	61	67	68	46	1012	3610	Total.

DEATHS REGISTERED IN THE BOROUGH OF SALFORD,

FROM JANUARY 1st, 1868, TO DECEMBER 31st, 1868.

CAUSES OF DEATH.	SEX TOTAL.		AGE BELOW																												SALFORD DISTRICT.				PENDLETON DISTRICT.		BROUGHT'N DISTRICT.		TOTAL OF THE BOROUGH.	CAUSES OF DEATH.
	Males.	Females.	—1		—2		—5		—10		—15		—20		—30		—40		—50		—60		—70		-80		-90		-100		Blackfriars	Crescent.	St. Stephen's	Trinity.	St. Thomas'	Seedley.	St. John's	Kersall.		
			M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.										
CLASS I.—Small Pox	2	2	1	1	1					1																					1	2				1			4	CLASS I.—Small Pox.
Measles	47	28	16	6	13	10	17	8	1	3		1																			6	25	13	18	7	4	1	1	75	Measles.
Scarlatina	183	221	22	32	32	42	81	81	43	56	2	6	1	1		2	1	1					1								23	109	59	80	72	50	1	10	404	Scarlatina.
Hooping Cough	31	51	20	28	6	16	5	5		1		1																			6	31	11	23	4	3	1	3	82	Hooping Cough.
Croup	32	19	9	10	12	3	10	4	1	1				1																	7	14	10	10	4	3		3	51	Croup.
Diarrhœa	201	166	150	116	21	22	9	8	1	1			2		1				1	1	2	4	9	10	3	2	2	2			39	125	60	86	20	23	10	4	367	Diarrhœa.
Dysentery	6	14	2	6	1	2	1					1				1			1	1		1		1	1	1					2		5	5	4	4			20	Dysentery.
Cholera, English	5	4	2			1			1										2			2		1							2	1	1		2	1		2	9	Cholera, English.
„ Asiatic																																								„ Asiatic.
Influenza																																								Influenza
Typhus Fever	53	64	2	2			3	6	2	4	3	4	4	3	11	6	7	11	11	16	5	8	3	4	2						4	82	9	11	4	5	1	1	117	Typhus Fever.
Typhoid „	58	67	3	6	4	3	6	4	14	11	5	8	7	6	8	8	3	11	4	6	2		2	4							6	54	14	26	8	10	5	2	125	Typhoid „
Erysipelas	4	5	2	1						1								1	1	1	1			1							1	3		1		2	1	1	9	Erysipelas.
Syphilis	9	11	8	9										1						1			1								3	6	4	5	2				20	Syphilis.
Dyphtheria	21	17	8	3	7	2	2	8	2	1		1	1		1					1						1						14	7	6	3	6	1	1	38	Dyphtheria.
Quinsey	2	1	1										1			1															2					1			3	Quinsey.
CLASS II.—Dropsy	27	34	3	2	2		6	5	8	3				1	1	3	2	3	1		2	11	2	6							5	15	14	13	3	6	1	4	61	CLASS II.—Dropsy.
Cancer	8	22							1									2		6	4	6	2	6		1	1	1			2	11	4	3	3	2	2	3	30	Cancer.
Abscess	12	14	5	4	1	1			1				1		1	5			1	2	2	1		1							4	8	4	4	1	2	1	2	26	Abscess.
CLASS III.—Scrofula	15	5	7	1			4	1	2	1		1					2	1													4	7	5	3		1			20	CLASS III.—Scrofula.
Tabes Mesenterica	30	26	19	17	5	3	4	3	1	3					1																3	24	4	3	7	10	1	4	56	Tabes Mesenterica.
Phthisis	148	133	5	4	2	3	3	2	2	2	3	9	17	18	47	45	38	27	19	15	10	5	1	3			1				22	96	51	47	26	29	5	5	281	Phthisis.
Hydrocephalus	21	12	10	7	6	2	4	3	1																						1	14	5	5	3	3	1	1	33	Hydrocephalus.
Neuralgia	1																1																		1				1	Neuralgia.
Rickets	1		1																															1					1	Rickets.
CLASS IV.—Inflammation of Brain, &c.	34	31	8	9	6	3	8	3	1	3					1	4	1	2	4	2	1	2	3	1	1	2					4	20	8	6	12	9	1	5	65	CLASS IV.—Inflammation of Brain, &c.
Apoplexy	16	17						1				1					1	2	2	1	8	7	3	4	2	1					1	10	4	7	3	4		4	33	Apoplexy.
Paralysis	29	29	1							1					1	1	2	2	7	7	7	8	10	8	1	2					1	38	4	5	5	1	1	3	58	Paralysis.
Epilepsy		6												1		1		1		1		1				1					1	2		1				2	6	Epilepsy.
Convulsions	117	76	92	63	10	8	12	3	2	1	1							1													21	41	44	37	22	19	3	6	193	Convulsions.
Disease of Brain, &c.	29	22	12	5	7	3	4	4	1					2		1	2		1	2	2	4		1							1	8	11	7	10	9	2	3	51	Disease of Brain, &c.
Disease of Spine	4	12		1			1	3	1				1	2		1				1		2	1	1		1						6	4	1		4		1	16	Disease of Spine.
CLASS V.—Disease of Heart	44	42	3	4			2		1	2	1	1		2	3	6	5	3	11	4	5	11	9	6	3	3	1				10	27	5	14	8	12	4	6	86	CLASS V.—Disease of Heart.
Hæmorrhage	4	5	1	1						1	1							1	1					2	1						1	3	2	1				2	9	Hæmorrhage.
CLASS VI.—Bronchitis	185	188	54	45	10	7	9	9	2	1		1	2		5	5	10	9	19	27	29	35	30	38	11	9	4	2			35	101	76	90	30	27	6	8	373	CLASS VI.—Bronchitis.
Pneumonia	51	37	27	14	3	10	2	3	2		1		1	1	6	2	1	5	5	2	1		2								3	27	14	15	12	13		4	88	Pneumonia.
Asthma	5	4		1													1		2		2	2				1					3	2	2		1	1			9	Asthma.
Disease of Lungs, &c	17	6	7	1			3	1				1			2				4		1	1				2					1	6	2	2	6	5	1		23	Disease of Lungs, &c.
CLASS VII.—Teething	23	20	19	17	4	2		1																							3	15	8	12	1	1		3	43	CLASS VII.—Teething.
Inflammation of Stomach	1	4		1			1			1														2								1		3		1			5	Inflammation of Stomach.
Inflammation of Bowels	9	10	4	4	1	2			1		1		1	1				1		1	1	1									1	5	5	2	3	2		1	19	Inflammation of Bowels.
Peritonitis	2	7							1		1					3		2		1				1								4	3	1	1				9	Peritonitis.
Disease of Stomach, &c	5	7	1									1						1	1	2	3	2		1								4	4	2		1		1	12	Disease of Stomach, &c.
Disease of Liver	26	15					1								5		4	1	4	2	4	7	5	4	2	1	1					11	5	7	5	6	4	3	41	Disease of Liver.
Diabetes	3	3																			1	1	2	2								2	1	1	1		1		6	Diabetes.
Hernia	5																				2		2		1							1		2	2				5	Hernia.
Mortification	1																		1														1						1	Mortification.
Colic Pictonum	1																				1												1						1	Colic Pictonum.
CLASS VIII.—Disease of Kidneys, &c.	17	6		1	2		4					1	1		6		2	2	1	1	1			1								8	2	4	5		3	1	23	CLASS VIII.—Disease of Kidneys, &c.
Disease of Bladder	5																1		1		2						1				1	1	1	1			1		5	Disease of Bladder.
CLASS IX.—Childbirth		15												1		5		9													1	7	3	1	1		1	1	15	CLASS IX.—Childbirth.
Uterine Diseases	1	12													1	1		4		1		5						1			1	5	2	2	1	1		1	13	Uterine Disease.
CLASS X.—Rheumatism, Diseases of Joints, &c.	18	19	1	2		1	2		2		1	1	1		2		1	2	2		3	2	3	1							1	12	4	3	4	1		2	27	CLASS X.—Rheumatism, Diseases of Joints, &c.
CLASS XI.—Skin Diseases, Cellular Tissue, &c.	3		3																													1			1		1		3	CLASS XI.—Skin Diseases, Cellular Tissues, &c.
Apthæ	6	1	5	1																	1											2		1	1	1	1	1	7	Apthæ.
CLASS XII.—Debility	14	25	4	11			2										1	1	2		2	6		5	2	1	1	1			1	15	5	6	5	3	1	3	39	CLASS XII.—Debility.
CLASS XIII.—Premature Birth	50	27	50	27																											4	23	10	14	6	13	4	3	77	CLASS XIII.—Premature Birth.
Difficult Birth	1		1																													1							1	Difficult Birth.
CLASS XIV.—Atrophy	16	15	14	11	2	3																		1							3	3	8	9	2	3		3	31	CLASS XIV.—Atrophy.
Marasmus	46	46	38	32	5	8	1	4	1	1	1							1													5	35	11	19	8	8	3	3	92	Marasmus.
Anæmia		1														1																			1				1	Anæmia.
CLASS XV.—Old Age	53	75																			3	5	16	20	28	27	6	20		3	9	72	9	14	7	11	2	4	128	CLASS XV.—Old Age.
CLASS XVI.—Malformation	5	1	4	1																					1							3	2	1					6	CLASS XVI.—Malformation.
CLASS XVII.—Delirium Tremens	9	2													1	1	3		1	1	1		3								1	7		1	1	1			11	CLASS XVII.—Delirium Tremens.
INQUESTS.—Wilful Murder		1																1													1								1	INQUESTS.—Wilful Murder.
Lungs, Inflammation of	2														1		1														2								2	Lungs, Inflammation of
Burns	9	7				1	5	4	2	1	1						1	1														4	8			4			16	Burns.
Sudden Death	19	8	2	1	1			1	2				1		1		2	1	2		3	3	5	2							3	10	3	6	3		1	1	27	Sudden Death.
Found Dead	12	14	7	3											2		1	3		1		4	1			3	1				4	9	7	4		1	1		26	Found Dead.
Scalds	2	7		2	2	3		1								1															1		1	2	2	3			9	Scalds.
Suicide	4	2													1		1		1	1	1			1									2	1	2		1		6	Suicide.
Crush	12	1	1		1	1			1				1		2		2		2		1		1									4	8		1				13	Crush.
Drowning	12	4					1		4		1	2			3		2	1	1	1											2	6		2	2	1		3	16	Drowning.
Poisoning	2	1			1														1	1													1	2					3	Poisoning.
Epilepsy		2														1		1													1	1							2	Epilepsy.
Delirium Tremens	4																		4														2			1		1	4	Delirium Tremens.
Natural Causes		1																		1												1							1	Natural Causes.
Convulsons	2	1	2	1																												1	2						3	Convulsions.
Phthisis	1																1														1								1	Phthisis.
Apoplexy	3																1		1						1						1	2							3	Apoplexy.
Fall	5	4			1							1			1		1				1		1	1		2						2	3	1	1		1	1	9	Fall.
Suffocation	1	3		2												1			1												1	2				1			4	Suffocation.
All Causes	1862	1748	657	516	169	162	213	176	105	101	23	42	43	41	115	106	102	115	123	111	115	148	118	139	60	61	19	27		3	273	1212	578	660	350	334	76	127	3610	All Causes.
I.—Zymotic Diseases	651	670	246	220	97	101	134	124	65	80	10	22	16	12	21	18	11	24	20	27	10	15	16	21	6	4	2	2			102	466	193	271	130	113	21	28	1324	I.—Zymotic Diseases.
II.—Diseases of Uncertain or Variable Seat	47	70	8	6	3	1	6	5	10	3			1	1	2	8	2	5	2	8	8	18	4	13		1	1	1			11	34	22	20	7	10	4	9	117	II.—Diseases of Uncertain or Variable Seat.
III.—Tubercula Diseases	216	176	42	29	13	8	15	9	6	6	3	10	17	18	48	45	41	28	19	15	10	5	1	3			1				30	141	65	59	37	43	7	10	392	III.—Tubercula Diseases.
IV.—Diseases of the Brain, Spinal Marrow, &c.	229	193	113	78	23	14	25	14	5	5	1	1	1	5	2	8	6	8	14	14	18	21	17	15	4	7					29	125	75	64	52	46	7	24	422	IV.—Diseases of the Brain, Spinal Marrow, &c.
V.—Diseases of Heart and Blood-Vessels	48	47	4	5			2		1	3	2	1		2	3	6	5	4	12	4	5	11	9	8	4	3	1				11	30	7	15	8	12	4	8	95	V.—Diseases of the Heart and Blood Vessels.
VI.—Diseases of the Lungs, &c	258	235	88	61	13	17	14	13	4	1	1	2	3	1	13	7	12	14	30	29	33	38	32	38	11	12	4	2			42	136	94	107	49	46	7	12	493	VI.—Diseases of the Lungs, &c.
VII.—Diseases of the Stomach, Liver, &c	76	66	24	22	5	4	2	1	2	1	2	1	1	1	5	3	4	5	6	6	12	11	9	10	3	1	1				4	43	28	30	13	11	5	8	142	VII.—Diseases of the Stomach, Liver, &c.
VIII.—Diseases of the Kidneys, &c	22	6		1	2		4					1	1		6		3	2	2	1	3			1			1				1	9	3	5	5		4	1	28	VIII.—Diseases of the Kidneys, &c.
IX.—Childbirth, Disease of the Uterus, &c.	1	27												1	1	6		13		1		5						1			2	12	5	3	2	1	1	2	28	IX.—Childbirth, Disease of the Uterus, &c.
X.—Rheumatism, Diseases of the Joints, &c	18	9	1	2		1	2		2		1	1	1		2		1	2	2		3	2	3	1							1	12	4	3	4	1		2	27	X.—Rheumatism, Diseases of the Joints, &c.
XI.—Diseases of the Skin, Cellular Tissues, &c.	9	1	8	1																	1											3		1	2	1	2	1	10	XI.—Diseases of the Skin, Cellular Tissues, &c.
XII.—*Debility*	14	25	4	11			2										1	1	2		2	6		5	2	1	1	1			1	15	5	6	5	3	1	3	39	XII.—*Debility.*
XIII.—*Premature Birth*	51	27	51	27																											4	24	10	14	6	13	4	3	78	XIII.—*Premature Birth.*
XIV.—*Atrophy and Marasmus*	62	62	52	43	7	11	1	4	1	1	1					1		1						1							8	38	19	28	11	11	3	6	124	XIV.—*Atrophy and Marasmus.*
XV.—*Old Age*	53	75																			3	5	16	20	28	27	6	20		3	9	72	9	14	7	11	2	4	128	XV.—*Old Age.*
XVI.—*Malformation*	5	1	4	1																					1							3	2	1					6	XVI.—*Malformation.*
XVII.—Sudden Death, &c.	99	58	12	9	6	5	6	6	9	1	2	3	2		12	4	16	8	14	6	7	7	11	4	1	5	1				18	49	37	19	12	12	4	6	157	XVII.—Sudden Deaths, &c.
Males	1862		657		169		213		105		23		43		115		102		123		115		118		60		19				273	1212	578	660	350	334	76	127		
Females		1748		516		162		176		101		42		41		106		115		111		148		139		61		27		3	2723				681		203		3610	
Average Number of Deaths per 1000 per annum, of the estimated Population			9·89		2·79		3·28		1·73		0·51		0·70		1·86		1·83		1·97		2·21		2·17		1·02		0·39		0.03		31·34				25·69		17·73		30·53	

Table 3.

Showing the Ages at Death in each District, and the average Number per Thousand on the present estimated Population, for the Year ending December 31st, 1868.

DISTRICT.	Under Three Months.	Three and under Six Months.	Six and under Nine Months.	Nine and under Twelve Months.	1 to 2 Years.	2 to 5 Years.	5 to 10 Years.	10 to 15 Years.	15 to 20 Years.	20 to 30 Years.	30 to 40 Years.	40 to 50 Years.	50 to 60 Years.	60 to 70 Years.	70 to 80 Years.	80 to 90 Years.	90 to 100 Years.	TOTALS
No. 1, or Blackfriars....	21	13	8	6	11	7	5	4	3	7	16	9	6	9	1	3	..	129
No. 2, or Islington	22	20	10	13	6	11	2	1	3	8	8	7	11	12	7	3	..	144
No. 3, or Oldfield Road..	66	30	43	49	62	69	30	6	10	37	33	29	30	21	9	7	..	531
No. 4, or Crescent......	56	39	21	37	45	59	40	15	18	44	57	64	62	68	37	18	1	681
No. 5, or St. Philip's ..	73	25	30	16	52	48	29	7	9	32	29	29	34	24	9	..	..	446
No. 6, or St. Stephen's..	17	8	9	8	17	22	5	3	..	6	6	11	5	8	5	2	..	132
No. 7, or Trinity	38	38	21	24	55	44	20	6	7	18	15	20	24	36	16	1	..	383
No. 8, or Greengate	38	22	12	23	25	31	18	5	8	17	11	18	30	12	7	..	..	277
No. 9, or St. Thomas's..	43	31	23	26	23	43	30	4	9	24	19	16	24	21	9	4	1	350
No. 10, or Seedley	45	27	16	21	31	48	20	6	11	15	16	20	20	25	10	2	1	334
No. 11, or Kersall	24	13	8	10	2	5	6	5	3	7	4	6	12	13	6	3	..	127
No. 12, or St. John's	13	7	3	7	2	2	1	3	3	6	3	5	5	8	5	3	..	76
TOTAL..........	456	273	204	240	331	389	206	65	84	221	217	234	263	257	121	46	3	3610
Average Number of Deaths per 1,000 of the Estimated Population......	3·86 or 1 in 259	2·31 or 1 in 440	1·73 or 1 in 579	2·03 or 1 in 492	2·79 or 1 in 354	3·28 or 1 in 364	1·73 or 1 in 574	0·54 or 1 in 1819	0·70 or 1 in 1407	1·86 or 1 in 535	1·83 or 1 in 545	1·97 or 1 in 505	2·21 or 1 in 450	2·17 or 1 in 460	1·02 or 1 in 980	0·39 or 1 in 2787	0·03 or 1 in 39404	30·53 or 1 in 32

FIRST ANNUAL REPORT

OF THE

SALFORD METEOROLOGICAL OBSERVATORY,

DECEMBER 31st, 1868.

TO THE COUNCIL OF THE BOROUGH OF SALFORD.

Gentlemen,

I beg most respectfully to lay before you the results of the observations I have made during the year 1868, at your Meteorological Observatory. I venture to affirm that they furnish a correct record of the general conditions of the atmosphere that extends over the most densely populated parts of the town. The position of the Observatory is well adapted for this purpose, as it affords a mean value of all the atmospheric conditions existing between the closest streets and the more open thoroughfares at the outskirts of the Borough.

I have carefully compared every observation with those taken daily at Eccles, so that I am in a position to lay before you the exact Meteorological differences that exist between the conditions of a town and a suburban atmosphere. I have likewise been furnished during the year with a weekly report from the Manchester and Salford Sanitary Association, of the number of persons seized each week with Zymotic or other diseases, as returned from the public institutions of the Borough. From these returns I have been enabled to mark out those diseases most manifestly affected by the varied conditions of the atmosphere; and to show in some degree how the state of a town atmosphere affects the health of its inhabitants.

I have prepared a series of tables at the end of this Report, which at a glance will shew important facts that I will here briefly summarize. It will be found from the first table that the mean of the highest day temperatures in the shade, is a little over half a degree less within the town than at Eccles; and there are only seventeen weeks during the year when the day temperatures at Salford exceeded those at Eccles, and these are mostly in the winter months. This I attribute to the amount of Smoke in the Borough, that prevents, in the summer months, the free action of the sun upon the ground. This amount of smoke is also manifest in the filthy rain water that falls in the rain-guage; and the colouring of the water indicates poisons in the atmosphere, besides mere carbon and sulphur. On the other hand, the same table shews that the mean of the night temperatures in the town always exceeds that at Eccles. This is altogether due to unnatural causes. The difference in one week in the month of July was nearly 7 degrees, and I have no doubt it was double the amount in the closest streets of the town. About this week the seizures in Diarrhœa and Dysentery were at the highest number, whilst Bronchitis and Influenza were at the lowest. During the remaining part of the year these differences continued very large, with a heavy amount of rain-fall, and the air almost thoroughly charged with moisture, and as a result there was an increase of fever of various kinds. This is not without an obvious explanation. The air in the surrounding country being colder at night rushes onward to the warmer air of the town, and carries with it all the vapours, mixed with a large amount of carbonic acid gas, arising from the nocturnal state of vegetation and decaying vegetable substances. Thus are brought to the town two vast vehicles for the conveyance or stimulation of disease in a densely populated district, and as a consequence, the most densely populated districts must suffer most. Nothing carries poisons better than vapour, and nothing is so destructive to health as the presence of carbonic acid gas, especially at night when there is no light to assist vegetation in its decomposition. Oxygen, too, which is the very essential of physical life, will not only be largely consumed in the town during the night, but an excess of town night temperature, which I have said is unnatural, will cause even much of the town oxygen to escape to the country, and this is proved as far as it goes, by the fact that though a little Ozone is found in Salford, yet during the excessive night temperatures of the town, much less or indeed none at all was found.

The Second Table presents the mean hourly temperature of the day and night for every week of the year, together with the weekly seizures of Whooping Cough, Diarrhœa and Dysentery, Bronchitis and Influenza. Whooping Cough appears to have been at its worst during the cold and wet weather of the early months of the year. Diarrhœa and Dysentery attained their greatest prevalence in the hottest months, whilst Bronchitis and Influenza were most prevalent in the coldest months of the year. The mean hourly temperature of the town, as may be expected, exceeds that at Eccles, the difference being about three-quarters of a degree, the greatest difference being in the winter months.

The Third Table gives the amount of Rain-fall and Ozone for each week of the year. Coupled with these are the seizures of Measles, Scarlatina, Continued Fever, Typhus and Typhoid, and Febricula. Of these, Measles were most prevalent in the hottest and driest months, but the fever cases increased amazingly as the wet weather set in after the dry and hot summer, and I may here remark that, generally, as the amount of Ozone decreased, the seizures in Measles, Scarlatina, Typhus and Continued Fever increased. With reference to Ozone I may also remark, that some years ago efforts were made to detect this state of Oxygen in Manchester, but without success. My test papers having been proved by different Meteorologists to be more sensitive than those which had hitherto been used, I tried by them to detect Ozone in your observatory, and the result will be found in this table. The difference between the amounts found in Salford and Eccles is very great.

The Fourth Table shews how Rheumatism and Bronchitis are affected by the extreme changes of the barometer, and the daily horizontal movement of the air. Unsettled weather shewn by a fluctuating barometer, and high winds give an increase of these diseases, especially in the winter months.

In conclusion, it will be found that the rain-fall at Eccles is slightly in excess of that at Salford. This is owing to the height at which the Salford guage has necessarily to be placed above the ground. The total fall for the year at Salford, is 31.184 inches, while at Eccles it is 32.922 inches. In a paper on rain-fall, which I read recently before the Manchester Literary and Philosophical Society, I furnish a mean ratio for the reduction of rain-fall to any height above the ground as far as 34 feet. The Salford rain-guage is 7 feet above the ground; and if the mean ratio I refer to, be used to reduce the rain-fall in Salford to the height the Eccles rain-guage is (3 feet) above the ground, the difference between the Eccles and Salford rain-fall will be very small indeed. If to this be added the absorptive power of the high night temperatures of the town, the complete cause of the difference of the rain-fall of the two places will be manifest.

I have the honour to be,

Gentlemen,

Your obedient Servant,

THOMAS MACKERETH, F.R.A.S., F.M.S., &c.

Table 1.

Shewing the Highest and Lowest Temperatures in the Shade, attained in each week of the year, together with their Differences from such Temperatures at Eccles; + meaning *higher* than the Eccles Temperature; — meaning *below* it.

1868. Week ending	Highest Temperature of the Day in Shade.	Difference from Eccles.	Lowest Temperature of the Night in Shade.	Difference from Eccles.
	°	°	°	°
January 4	41.3	+0.7	27.2	+2.7
„ 11	39.3	+0.3	28.1	+1.2
„ 18	55.9	+0.6	32.0	+1.4
„ 25	44.6	—0.8	30.0	+4.7
February 1	54.3	+1 0	35.9	+3.3
„ 8	49.2	—0.1	34.0	+1.9
„ 15	49.1	—0.3	28.8	+3.8
„ 22	50.6	+0.1	32.0	+4.9
„ 29	57.9	+1.4	35.1	+0.8
March 7	52.9	+0.4	33.4	+1.4
„ 14	58.0	—0.5	33.8	+1.7
„ 21	57.0	—2.5	34.2	+4.2
„ 28	56.8	+0.3	30.2	+4.3
April 4	60.8	—1.8	34.9	+4.7
„ 11	61.5	—1.0	32.8	+3.0
„ 18	59.0	—2.0	30.1	+2.3
„ 25	59.2	—0.1	41.2	+4.7
May 2	70.0	+1.0	38.9	+4.2
„ 9	73.2	—0.3	38.5	+5.6
„ 16	67.5	—1.0	45.1	+4.2
„ 23	80.9	—1.6	44.1	+5.2
„ 30	75.2	„	46.1	+4.4
June 6	76.0	+1.2	42.4	+1.8
„ 13	73.1	—1.4	46.0	+2.8
„ 20	84.1	—1.6	48.2	+4.6
„ 27	81.3	—0.2	49.0	+4.8
July 4	77.0	—1.5	49.7	+4.8
„ 11	77.5	—2,5	51.0	+4.2
„ 18	88.4	—1.2	53.0	+3.1
„ 25	81.3	—3.2	48.6	+6.6
August 1	86,2	—1.1	49.0	+3.9
„ 8	89.3	—2.0	56.0	+1.9
„ 15	75.4	—0.5	52.0	+3.8
„ 22	73.8	+0.1	54 0	+4.0
„ 29	64.4	—0.8	48.8	+2.0
Sept. 5	84.7	—1.3	50.9	+6.0
„ 12	85.2	—2.9	50.9	+4.4
„ 19	68.9	+1.4	43.3	+4.6
„ 26	69.1	—0.4	46.4	+4.4
October 3	63.4	—0.2	37.0	+4.4
„ 10	63.3	—2.2	42.9	+2.6
„ 17	61.4	—2.1	38.8	+5.7
„ 24	58.4	—1.1	32.0	+4.0
„ 31	58.4	+0.4	40.0	+4.4
November 7	63.9	—0.8	27.0	+3.5
„ 14	45.8	—1.9	32.5	+4.4
„ 21	46.6	„	34.4	+0.6
„ 28	55.2	+0.6	39.2	+1.9
December 5	56.2	+1-0	35.0	+4.3
„ 12	55.8	+0.6	35.0	+4.1
„ 19	53 2	—0.7	38.5	+2.8
„ 26	55.1	+0.4	38.5	+4.5
Mean	64.3	—0.6	39.9	+3.7

Table 2.

Shewing the Mean Hourly Temperature of the Day and Night, for every Week of the year, compared with such Temperature at Eccles, together with the weekly Seizures of Whooping Cough, Diarrhœa, Dysentery, Bronchitis, and Influenza.

1868. Week ending	Mean Hourly Temperature.	Difference from Eccles.	Number of Seizures of		
			Whooping-Cough.	Diarrhœa and Dysentery.	Bronchitis & Influenza.
	°	°			
January 4	34.5	+1.5	9	9	70
,, 11	35.9	+1.0	4	5	81
,, 18	46.1	+0.7	4	8	80
,, 25	38-6	+1.3	6	11	81
February 1	44.3	+0.3	6	5	83
,, 8	42.5	+0.9	7	3	62
,, 15	42.8	+1.0	9	9	62
,, 22	41.4	+1.1	7	7	69
,, 29	47.1	+0.9	4	3	50
March 7	44.4	+0.4	4	8	49
,, 14	45.0	+0.6	3	9	50
,, 21	44.1	+0.5	2	8	38
,, 28	43 2	+0.6	2	10	48
April 4	45.1	+0.8	3	8	53
,, 11	44.0	+0.6	4	13	55
,, 18	44.9	+0.5	3	12	61
,, 25	48.7	+0.5	,,	12	48
May 2	50.3	+1.3	3	12	46
,, 9	51.7	+0.8	2	15	46
,, 16	55.6	+0.7	2	12	57
,, 23	58.8	+0.2	3	14	40
,, 30	56.7	+0.4	1	14	36
June 6	56.0	+0.5	1	11	38
,, 13	55.5	+1.4	3	14	49
,, 20	60.5	+0.1	2	15	43
,, 27	59.9	+0.9	4	16	40
July 4	61.8	+1.2	,,	29	33
,, 11	61.8	+0.3	,,	44	36
,, 18	65.0	+0.7	3	43	33
,, 25	63.3	+0.4	1	70	36
August 1	63.7	+0.3	1	72	24
,, 8	70.4	+1.3	3	73	33
,, 15	63.1	+0.7	2	63	30
,, 22	59.7	+1.6	,,	58	42
,, 29	55 5	+0.5	,,	41	50
Sept. 5	62.3	+0.5	,,	30	46
,, 12	61.5	—0.7	,,	37	42
,, 19	53.6	+0.7	,,	23	58
,, 26	56.4	+1.0	,,	19	49
October 3	52.1	+0.2	,,	17	47
,, 10	50.1	+0.4	,,	19	57
,, 17	48.4	+0.5	,,	14	55
,, 24	41.6	+0.4	,,	6	63
,, 31	46.7	+0.9	,,	9	59
November 7	44.6	+1.2	,,	10	59
,, 14	41.3	+1.5	,,	7	61
,, 21	40.0	+0.2	,,	6	66
,, 28	44.2	+1.4	1	7	74
December 5	46.5	+0.9	,,	11	69
,, 12	46.9	+1.1	,,	7	62
,, 19	46.7	+0.1	,,	7	60
,, 26	44.1	+1.3	,,	6	48
Mean	50.5	+0.7	2	19	52

Table 3.

Shewing the Amount of Rain-Fall in inches; the Amount of Ozone, and its difference from Eccles for each Week of the year; together with the Seizures of Measles, Scarlatina, Continued Fever, Typhus Fever, and Febricula.

1868. Week ending	Rain-fall in inches.	Amount of Ozone 0 to 10.	Difference from Eccles.	Number of Seizures of					
				Measles.	Scarlatina.	Continued Fever.	Typhus.	Febricula.	Totals.
Jany. 4	0.012	,,	—0.71	3	4	6	5	5	23
,, 11	0.303	0.42	—0.72	,,	2	11	5	2	20
,, 18	0.818	,,	—5.00	3	2	10	5	5	25
,, 25	0.758	,,	—2.43	3	5	7	5	8	28
Feby. 1	1.135	0.57	—5.86	5	7	11	6	3	32
,, 8	0.587	0.28	—3.72	,,	5	11	2	6	24
,, 15	0.119	0.18	—3.96	1	2	8	9	3	23
,, 22	0.546	0.33	—3.95	1	4	10	3	4	22
,, 29	0.797	0.43	—5.23	1	3	7	11	7	29
Mar. 7	1.913	1.00	—9.71	,,	3	7	3	3	16
,, 14	0.501	0.43	—6.00	2	2	9	8	5	26
,, 21	0.706	,,	—3.00	1	5	13	5	4	28
,, 28	0.666	0.43	—4.28	1	3	7	3	3	17
April 4	,,	,,	—1.43	5	1	9	7	2	24
,, 11	0.028	0.14	—2.43	1	3	15	8	3	30
,, 18	0.584	,,	—2.14	2	4	16	5	3	30
,, 25	0.700	0.28	—4.57	2	5	5	8	9	29
May 2	0.298	1.28	—4.43	3	2	8	9	7	29
,, 9	,,	0.28	—2.00	5	4	9	7	3	29
,, 16	0.136	,,	—2.14	2	7	11	7	2	29
,, 23	0.315	0.14	—4.71	4	8	11	1	9	33
,, 30	0.313	0.28	—5.43	3	4	7	4	3	21
June 6	0.034	0.42	—4.29	3	9	10	5	5	32
,, 13	0.050	0.14	—3.57	5	11	5	3	3	27
,, 20	,,	0.14	—2.39	4	9	16	6	5	40
,, 27	0.092	0.14	—5.14	3	10	12	6	7	38
July 4	,,	0.28	—2.31	6	7	17	7	8	45
,, 11	0.030	,,	—3.00	6	11	9	4	6	36
,, 18	0.223	,,	—4.57	2	13	12	5	5	37
,, 25	,,	,,	—2.43	3	9	9	7	6	34
Aug. 1	0.135	0.14	—3.14	5	9	13	6	6	39
,, 8	0.192	,,	—2.85	3	5	4	4	7	23
,, 15	0.769	,,	—3 33	1	14	10	7	13	45
,, 22	0.928	,,	—8.00	1	13	16	14	6	50
,, 29	0.470	2.14	—6.43	3	11	20	17	4	55
Sept. 5	0.028	,,	—1.42	2	7	19	17	6	51
,, 12	0.149	2.42	—2.42	,,	11	11	7	10	39
,, 19	0.302	,,	—2 41	1	10	12	10	14	47
,, 26	0.884	,,	—2.00	3	15	15	8	8	49
Oct. 3	0.692	,,	—2.71	2	22	12	4	8	48
,, 10	1.149	,,	—2.00	,,	29	18	12	13	72
,, 17	0.942	,,	—1.85	2	25	15	17	8	67
,, 24	1.248	0.28	—3.14	,,	14	7	10	8	39
,, 31	1.282	,,	—5.14	1	17	1	12	2	33
Nov. 7	1.408	0.71	—4.57	,,	16	17	12	11	56
,, 14	0.064	0.28	—1.29	2	14	27	6	12	61
,, 21	0.185	,,	—2.71	1	25	16	10	5	57
,, 28	0.825	,,	—0.71	1	22	10	8	8	49
Dec. 5	1.325	1.00	—5.14	1	18	12	3	3	37
,, 12	1 814	0.57	—3.14	2	21	8	7	4	42
,, 19	0.956	0.28	—3.00	,,	16	11	4	5	36
,, 26	2.796	,,	—2.57	,,	17	8	4	3	32
Mean	30.207	0.29	—3.56	2	10	11	7	6	36

Table 4.

Shewing the extreme range of the Barometer in inches, and the amount in miles, of the weekly horizontal movement of the air, together with the number of seizures of Rheumatism and Bronchitis.

1868. Week ending	Extreme range of Barometer in in.	Horizontal movement of the Air in miles.	Seizures of Rheumatism.	Seizures of Bronchitis.
January 4	0.348	453	8	70
„ 11	0.434	969	6	81
„ 18	1.196	1,793	9	80
„ 25	1.339	1,307	4	81
February 1	1.244	1,865	8	83
„ 8	0.728	2,608	4	62
„ 15	0.672	1,440	5	62
„ 22	0.796	1,737	9	69
„ 29	1.012	1,418	6	50
March 7	0.870	1,558	6	49
„ 14	1.216	1,473	4	50
„ 21	0.572	701	3	38
„ 28	0.901	954	8	48
April 4	0.536	163	6	53
„ 11	0.546	660	4	55
„ 18	0.616	462	6	61
„ 25	1.410	860	4	48
May 2	0.338	820	4	46
„ 9	0.528	332	4	46
„ 16	0.610	654	4	57
„ 23	0.777	706	6	40
„ 30	0.712	785	3	36
June 6	0.228	237	3	38
„ 13	0.120	403	2	49
„ 20	0.294	250	5	43
„ 27	0.682	470	3	40
July 4	0.336	860	2	33
„ 11	0.230	832	3	36
„ 18	0.295	888	2	33
„ 25	0.408	925	3	36
August 1	0.728	942	„	24
„ 8	0.580	1,053	1	33
„ 15	0.600	940	5	30
„ 22	0.917	1,287	3	42
„ 29	0.835	1,452	„	50
Sept. 5	0.208	613	„	46
„ 12	0.408	908	2	42
„ 19	0.576	1,011	2	58
„ 26	0.490	987	2	49
October 3	1.028	1,174	2	47
„ 10	0.486	979	1	57
„ 17	0.714	812	„	55
„ 24	0.574	995	1	63
„ 31	0.656	1,213	3	59
November 7	0.608	1,508	„	59
„ 14	0.704	667	1	61
„ 21	1.070	923	2	66
„ 28	1.168	833	2	74
December 5	0.766	1,520	3	69
„ 12	1.154	1,434	„	62
„ 19	0.530	1,650	8	60
„ 26	0.964	1,174	2	48
Mean..........	0.685	1,012	3	52